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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/805,991      | 03/15/2001  | Kiyomi Sakamoto      | 2001_0308A          | 3734             |

513 7590 07/30/2003

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EXAMINER

SEALEY, LANCE W

ART-UNIT

PAPER NUMBER

2671

DATE MAILED: 07/30/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/805,991

Applicant(s)

SAKAMOTO ET AL.

Examiner

Lance W. Sealey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-14,17-19,21-27,29-34,37-39,41-51 and 53-59 is/are rejected.
- 7) ☒ Claim(s) 8,15,16,20,28,35,36,40 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## **DETAILED ACTION**

### ***Allowed and Allowable Subject Matter***

1. Claims 8, 15-16, 20, 28, 35-36, 40 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. No prior art anticipates or suggests a map display device for converting externally provided communications information into an applicable object model for arrangement on a map image wherein said information about behavior in time and space of said object model is described in an object-oriented interpreter language having no need for compilation (claims 8 and 28); the reference of the map data arranging part to time information to create an object model corresponding to a mobile unit for arrangement on said map image (claims 15, 35 and 52); a map data arranging part which creates, if necessary, an object model corresponding to a faregate and ticket expiration date information to be arranged on a map by the map data arranging part (claims 20 and 40). Claims 16 and 36 are allowable because they depend on allowable claims 15 and 35, respectively.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of 35 U.S.C. 102(e) which forms the basis for all novelty-related rejections set forth in this Office action:

A person shall be entitled to a patent unless—

- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by applicant for patent.

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3. Claims 1-7, 9-10, 12, 26-27, 29-30, 32 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Takayama et al. ("Takayama," U.S. Pat. No. 6,336,072).

4. Takayama, in disclosing an apparatus and method for presenting navigation information based on instructions described in a script, also discloses, with respect to claims 1 and 48, a map display device for converting externally provided communications information into an applicable object model for arrangement on a map image, said device comprising:

- an input part for receiving a user's instruction (operation unit **11**, FIG.1, and col.7, l.65-col.8, l.32);
- a map data storage part for previously storing map data (map information database **44**, FIG.2, and col.9, ll.55-60);
- an object model display information storage part for storing object model display information for displaying said object model on said map image (point database **1381**, FIG.38E, and col.44, ll.25-29);
- a communications part for receiving said communications information (network accessing unit (network accessing unit **12**, FIG.1, and col.8, ll.27-33);
- a map data arranging part for creating said object model by interpreting said communications information and the object model display information provided by said object model display information storage part, and arranging the object model on said map (browser screen **1110**, FIG.23, and col.33, l.62-col.34, l.19);

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- and a display part for displaying a resultant map image obtained by said map data arranging part (terminal 1010, FIG.23, and col.33, ll.62-63).

5. Concerning claim 2, Takayama discloses a map display device wherein said communications information includes time-varying information (col.21, ll.23-24 state that navigation information is output; col.19, ll.48-56 state that the user can ask for traffic information as part of the navigational information to be output).

6. Regarding claim 3, Takayama discloses a map display device wherein said time-varying information is plurally provided (col.19, ll.48-56 disclose different types of traffic information).

7. With respect to claim 4, Takayama discloses a map display wherein said communications information includes traffic information (col.19, ll.48-56).

8. Concerning claim 5, Takayama discloses a map display device wherein said communications information includes advertisement information (col.66, ll.28-29).

9. Regarding claim 6, Takayama discloses a map display device wherein said communications information includes position information corresponding to a predetermined position on said map image (col.9, ll.1-9).

10. With respect to claims 7 and 27, Takayama discloses a map display device wherein said object model display information comprises: information about shape (col.44, ll.38-56) of said object model; and information about behavior in time and space (Abstract, first sentence) of said object model.

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11. Concerning claims 9 and 29, Takayama discloses a map display device wherein said information about behavior in time and space of said object model includes an execution condition and an execution function (Abstract, second sentence).

12. Regarding claims 10 and 30, Takayama discloses a map display device wherein said map data arranging part appropriately arranges said object model on a road image of said map image (col.40, 1.60 to col.41, 1.2).

13. With respect to claims 12, 32, 49 and 56, Takayama discloses a map display device wherein said map data arranging part comprises: an object model display information execution part for interpreting and executing said communications information and said object model display information provided by said object model display information storage part (Abstract, second sentence); an object model creation part for creating said object model responsively to a result obtained by said object model display information execution part (inherent based on col.40, 1.60-63); and a data arranging part for arranging said object model on said map image (inherent based on col.40, 1.66-col.41, 1.2).

14. Concerning claims 26 and 59, Takayama discloses a navigation device for converting externally provided communications information into an applicable object model for arrangement on a map image, and making a guidance to a destination, said device comprising:

- an input part for receiving a user's instruction (operation unit 11, FIG.1, and col.7, 1.65 to col.8, 1.32);

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- a position detection part for detecting a current position (state acquiring unit, col.2, ll.14-17);
- a map data storage part for previously storing map data (map information database 44, and col.9, ll.55-60);
- an object model display information storage part for storing object model display information in advance for displaying said object model on said map image (point database 1381, FIG.38E, and col.44, ll.25-29);
- a route selection part for selecting a route to the destination based on said instruction provided by said input part, said current position detected by said position detection part, and said map data stored in said map data storage part (col.8, ll.27-39);
- a communications part for receiving said communications information (network accessing unit 12, FIG.1, and col.8, ll.27-33);
- a map data arranging part for creating said object model by interpreting said communications information and the object model display information provided by said object model display information storage part, and arranging the object model on said map (browser screen 1110, FIG.23, and col.33, ll.62-63);
- a guiding part for making the guidance to the destination in response to said communications information received by said communications part, said route selected by said route selection part, said current position detected by said position detection part,

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and said map data provided by said map data storage part, and outputs a resultant map image obtained by said map data arranging part (navigation script, col.2, l.62 to col.3, l.2);

- and a display part for displaying said resultant map image outputted from said guiding part (terminal 1010, FIG.23, and col.33, ll.62-63).

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

16. Claims 11 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takayama.

17. Takayama does not explicitly disclose a map display device wherein said object model (e.g., a building) is plurally created and each (e.g., more than one building) appropriately arranged on said road image. However, Takayama does disclose the map data arranging part appropriately arranging said object model (e.g., one building) on a road image of said map image (col.40, l.60 to col.41, l.2). Therefore, it would be obvious to one of ordinary skill in the art at



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the time the invention was made for Takayama to disclose a map display device wherein said object model is plurally created and each appropriately arranged on said road image (e.g., presenting more than one building on a road) because the purpose of the Takayama invention is to provide navigation information of a route (col.1, ll.8-10), and one way it does this is by using structural landmarks (see col.8, ll.49-63). It would be unreasonable to assume that the Takayama invention aids its user in getting from one place to another, but only as long as there is one structural landmark on each road on the way to the final destination.

18. Accordingly, in view of the foregoing, claims 11 and 31 are rejected as being unpatentable under 35 U.S.C. 103 by Takayama.

19. Claims 13-14, 33-34 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takayama in view of Okude et al. ("Okude," U.S. Pat. No. 6,341,254).

20. With respect to claim 13, Takayama does not disclose a map data arranging part which comprises a 3D map generation part for generating a 3D map image based on 2D map data provided by said map data storage part, and said data arranging part arranges said object model on the map image generated by said 3D map creation part. However, these elements are disclosed by the Okude map displaying method and navigation system at col.11, l.65 to col.12, l.11.

21. Therefore, it would have been obvious to one of ordinary skill in the art at the time this invention was made to incorporate the Okude map data creation part into the Takayama

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navigation system. This would aid in navigation by giving the user a distinctive impression of distance (Okude, col.12, ll.10-11).

22. The other claim in this rejection will now be considered. Concerning claim 14, Okude discloses arranging the 3D object model transformed by said 2D/3D coordinate transformation part on said map image in col.12, ll.2-9. Okude does not explicitly disclose a 2D/3D coordinate transformation part for transforming a 2D object model created by said object model creation part into a 3D object model. However, since Okude discloses creation of a 3D map image based on 2D map data as already stated in the rejection of claim 13, it is inherent that such a creation would involve transforming a 2D object model created by said object model creation part into a 3D object model.

23. Accordingly, in view of the foregoing, claims 13-14, 33-34 and 50 are rejected as being unpatentable under 35 U.S.C. 103 by Takayama and Okude.

24. Claims 17-18, 37-38 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takayama in view of Kaplan et al. ("Kaplan," U.S. Pat. No. 6,463,384).

25. Regarding claims 17, 37 and 53, Takayama does not disclose a map display device wherein said communications part receives the communication information including information for specifying a faregate to be passed through, and if necessary, transmits charge information for a charge processing, and said map data arranging part creates, if necessary, said object model corresponding to said communications information for arrangement on said map

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image, and generates said charge information. However, these elements are disclosed by the Kaplan geographic database at FIG.9.

26. Therefore, it would have been obvious to one of ordinary skill in the art at the time this invention was made to incorporate the Kaplan geographical database into the Takayama navigation system. This would aid in preparing the end user to make the appropriate payment at toll gates encountered while driving (Kaplan, col.1, ll.58-61).

27. The other claim in this rejection will now be considered. With respect to claims 18 and 38, Kaplan discloses a map data arranging part that generates said charge information by referring to said communications information related to said faregate placed at an entrance and an exit for a predetermined chargeable section, and creates an object model including a fare for said chargeable section for arrangement on said map image (FIG.9; the entrance and the exit are one and the same).

28. Accordingly, in view of the foregoing, claims 17-18, 37-38 and 53 are rejected as being unpatentable under 35 U.S.C. 103 by Takayama and Kaplan.

29. Claims 19 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takayama in view of Kaplan and further in view of Kusama (U.S. Pat. No. 6,259,989).

30. Neither Takayama nor Kaplan disclose a map display device which further comprises a ticket information storage part for storing ticket information corresponding to a ticket used for paying the fare for said chargeable section, wherein said map data arranging part generates said

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ticket information stored in said ticket information storage part when said ticket is purchased, and if necessary, changes said communications information. However, these elements are disclosed by the Kusama navigation device at col.5, ll.62-66 (the existence of a ticket information storage part is inherent because there must be some storage that the ticket information occupies before it is displayed).

31. Therefore, it would have been obvious to one of ordinary skill in the art at the time this invention was made to incorporate the Kusama navigation device into the Takayama-Kaplan navigation system. This would aid in preparing the end user to submit the ticket before he or she reaches the toll collection point (Kusama, col.5, l.66 to col.6, l.2).

32. Accordingly, in view of the foregoing, claims 19 and 39 are rejected as being unpatentable under 35 U.S.C. 103 by Takayama, Kaplan and Kusama.

33. Claims 21-25, 41-44, 46, 54 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takayama in view of Suman et al. ("Suman," U.S. Pat. No. 6,028,587) and Okude.

34. Concerning claims 21, 41 and 42, Takayama does not disclose a map display device wherein said communications part receives the communications information including position information about any available vehicle, and when the user desires to take one of the available vehicles, transmits selected vehicle information including information for specifying which vehicle the user desires to take, and when the user desires to take one of the available vehicles,

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generates said selected vehicle information. These elements are disclosed by the Suman vehicle communication and remote control system at col.12, 1.60 to col.13, 1.1 (user is emergency vehicle dispatcher, information generated when the user decides to take a vehicle is location of the vehicle).

35. However, neither Takayama nor Suman disclose a map data arranging part which creates said object model corresponding to said communications information for arrangement on said map image. This is disclosed by Okude at col.11, 1.65 to col.12, 1.11.

36. Therefore, it would have been obvious to one of ordinary skill in the art at the time this invention was made to incorporate the Okude map data creation part into the Takayama-Suman navigation system. This would facilitate the location of topographical features such as buildings (Okude, col.1, 1.66 to col.2, 1.8).

37. The other claims in this rejection will now be considered. Regarding claims 22 and 43, Suman discloses a map display device wherein said available vehicles are located within a predetermined area range close to a current position of the user (col.12., 1.60 to col.13, 1.1; user is presumably in same municipal jurisdiction as vehicles).

38. With respect to claims 23 and 44, Suman discloses a map display device wherein said available vehicles move according to schedule on a predetermined route (col.12, 1.60 to col.13, 1.1; schedule and route are predetermined by dispatcher).

39. Concerning claims 24 and 46, Suman discloses a map display device wherein said

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communications part transmits a request for vehicle information including the current position of the user for an externally provided information center (col.12, ll.54-64; information transmitted by vehicle that placed the 911 call), and receives the communications information including the position information of the available vehicles selected by said information center (col.12, ll.64 to col.13, l.1; information received by dispatcher).

40. Regarding claims 25, 47 and 57, Okude discloses a map display device wherein said map data arranging part refers to said communications information, creates said object model each corresponding to said available vehicle (Okude discloses object models of vehicles in col.4, ll.35-44, and Suman discloses "available vehicles" at col.13, l.4), and if necessary, creates an object model including information about said available vehicles for arrangement on said map image (the ability to see the Okude vehicle object model on the map provides information as to its location).

41. Accordingly, in view of the foregoing, claims 21-25, 41-44, 46-47 and 57 are rejected as being unpatentable under 35 U.S.C. 103 by Takayama, Suman and Okude.

42. Finally, claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takayama in view of Suman and Okude and further in view of Doi (U.S. Pat. No. 6,377,890).

43. Neither Takayama, Suman nor Okude disclose, with respect to claim 45, a navigation device with a guiding part that compares, at least, a predetermined route on which available vehicles move with the route to the destination selected by said route selection part, and

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determines whether the available vehicles are appropriate. However, these elements are impliedly disclosed by the Doi navigator at col.5, ll.30-39.

44. Therefore, it would have been obvious to one of ordinary skill in the art at the time this invention was made to incorporate the Doi navigator into the Takayama-Suman-Okude navigation system. This would supply a user with an optimal sequence of routes when using public transportation services (Doi, col.5, ll.52-54).

45. Accordingly, in view of the foregoing, claim 45 is rejected as being unpatentable under 35 U.S.C. 103 by Takayama, Suman, Okude and Doi.

***Objection***

46. Claims 41 and 42 are the same.

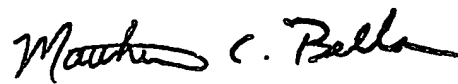
***Conclusion***

47. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lance Sealey whose telephone number is (703) 305-0026. The examiner can normally be reached Monday-Friday from 7:00 am to 3:30 pm EDT.

48. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached on (703) 305-9798. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

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49. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700 or the Customer Service Office at (703) 306-0377.

A handwritten signature in black ink, appearing to read "Matthew C. Bella". The signature is fluid and cursive, with the first name "Matthew" being more prominent than the last name "Bella".

MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
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